

**INFORMATION TO OFFERORS OR QUOTERS
SECTION A - COVER SHEET**

1. SOLICITATION NUMBER

2. (X one)

N00173-99-R-JR06

a. SEALED BID

☒ b. NEGOTIATED (RFP)

c. NEGOTIATED (RFQ)

INSTRUCTIONS

NOTE THE AFFIRMATIVE ACTION REQUIREMENT OF THE EQUAL OPPORTUNITY CLAUSE WHICH MAY APPLY TO THE CONTRACT RESULTING FROM THIS SOLICITATION.

You are cautioned to note the "Certification of Non-Segregated Facilities" in the solicitation. Failure to agree to the certification will render your reply nonresponsive to the terms of solicitations involving awards of contracts exceeding \$25,000 which are not exempt from the provisions of the Equal Opportunity clause.

"Fill-ins" are provided on the face and reverse of Standard Form 18 and Parts I and IV of Standard Form 33, or other solicitation documents and Sections of Table of Contents in this solicitation and should be examined for applicability.

See the provision of this solicitation entitled either "Late Bids, Modifications of Bids or Withdrawal of Bids" or "Late Proposals, Modifications of Proposals and Withdrawals of Proposals."

When submitting your reply, the envelope used must be plainly marked with the Solicitation Number, as shown above and the date and local time set forth for bid opening or receipt of proposals in the solicitation document.

If NO RESPONSE is to be submitted, detach this sheet from the solicitation, complete the information requested on reverse, fold, affix postage, and mail. NO ENVELOPE IS NECESSARY.

Replies must set forth full, accurate, and complete information as required by this solicitation (including attachments). The penalty for making false statements is prescribed in 18 U.S.C. 1001.

3. ISSUING OFFICE (Complete mailing address, including ZIP Code)

CONTRACTING OFFICER

NAVAL RESEARCH LABORATORY

ATTN: CODE: 3220JR

WASHINGTON DC 20375-5326

4. ITEMS TO BE PURCHASED (Brief description)

ANTIBODY ARRAY BIOSENSOR

5. PROCUREMENT INFORMATION (X and complete as applicable)

a. THIS PROCUREMENT IS UNRESTRICTED

☒ b. THIS PROCUREMENT IS A 100 % SET-ASIDE FOR ONE OF THE FOLLOWING (X one). (See Section I of the Table of Contents in this solicitation for details of the set-aside.)

☒ (1) Small Business

(2) Labor Surplus Area Concerns

(3) Combined Small Business/Labor Area Concerns

6. ADDITIONAL INFORMATION

The Naval Research Laboratory Contracting Division issues solicitations and amendments to solicitations electronically via the Internet at the following website: <http://heron.nrl.navy.mil/contracts/home.htm>.

Any amendments to this solicitation will be posted at that website. Amendments will not be distributed by any other means. It is the responsibility of potential offerors to periodically review the website for amendments to this solicitation.

7. POINT OF CONTACT FOR INFORMATION

a. NAME (Last, First, Middle Initial)

RILES, JERRY

c. TELEPHONE NUMBER (Include Area Code and Extension) (NO COLLECT CALLS) **(202) 767- 2120**

b. ADDRESS (Include Zip Code)

NAVAL RESEARCH LABORATORY

4555 OVERLOOK AVE, SW

WASHINGTON, DC 20375-5326

8. REASONS FOR NO RESPONSE <i>(X all that apply)</i>			
a. CANNOT COMPLY WITH SPECIFICATIONS		b. CANNOT MEET DELIVERY REQUIREMENT	
c. UNABLE TO IDENTIFY THE ITEM(S)		d. DO NOT REGULARLY MANUFACTURE OR SELL THE TYPE OF ITEMS INVOLVED	
e. OTHER <i>(Specify)</i>			
9. MAILING LIST INFORMATION <i>(X one)</i>			
YES	NO	WE DESIRE TO BE RETAINED ON THE MAILING LIST FOR FUTURE PROCUREMENT OF THE TYPE OF TIME(S) INVOLVED.	
10. RESPONDING FIRM			
a. COMPANY NAME		b. ADDRESS <i>(Include Zip Code)</i>	
c. ACTION OFFICER			
(1) Typed or Printed Name <i>(Last, First, Middle Initial)</i>	(2) Title	(3) Signature	(4) Date Signed <i>(YYMMDD)</i>

DD FORM 1707 REVERSE, MAR 90

FOLD

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FROM

AFFIX
STAMP
HERE

SOLICITATION NUMBER N00173-99-R-JR06	
DATE (YYMMDD) 99 APR 26	LOCAL TIME 4:00PM

TO NAVAL RESEARCH LABORATORY
CODE 3220:JR
4555 OVERLOOK AVE, SW
WASHINGTON, DC 20375-5326

SOLICITATION, OFFER AND AWARD		1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 350)		RATING DOC9	PAGE OF 1 23 PAGES
2. CONTRACT NO.		3. SOLICITATION NO. N00173-99-R-JR06		4. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	5. DATE ISSUED 24 MARCH 99
7. ISSUED BY CONTRACTING OFFICER NAVAL RESEARCH LABORATORY ATTN: CODE WASHINGTON DC 20375-5326		CODE N00173		6. REQUISITION/PURCHASE NO. 69-0014-99	
				8. ADDRESS OFFER TO (If other than Item 7) ALL OFFERORS	

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and 3 copies for furnishing the supplies or services in the Schedule will be received at the place specified in Item 8, or if handcarried, in the depository located in **BLDG 222, ROOM 115** until **4:00pm** local time **26 APRIL 99**
(Hour) (Date)

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-10. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME JERRY RILES, Contract Specialist	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS) (202) 767-2120
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11. TABLE OF CONTENTS

(✓)	SEC.	DESCRIPTION	PAGE(S)	(✓)	SEC.	DESCRIPTION	PAGE(S)
PART I - THE SCHEDULE				PART II - CONTRACT CLAUSES			
<input checked="" type="checkbox"/>	A	SOLICITATION/CONTRACT FORM	1	<input checked="" type="checkbox"/>	I	CONTRACT CLAUSES	10-13
<input checked="" type="checkbox"/>	B	SUPPLIES OR SERVICES AND PRICES/COSTS	2	PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH.			
<input checked="" type="checkbox"/>	C	DESCRIPTION/SPECS./WORK STATEMENT	3	<input checked="" type="checkbox"/>	J	LIST OF ATTACHMENTS	14
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OFFER (Must be fully completed by offeror)

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within _____ calendar days (60 calendar days unless a different period is inserted by the offeror) from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the price set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT (See Section I, Clause No. 52-232-8)	10 CALENDAR DAYS	20 CALENDAR DAYS	30 CALENDAR DAYS	CALENDAR DAYS
	%	%	%	%
14. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated:	AMENDMENT NO.		DATE	

15A. NAME AND ADDRESS OF OFFEROR	CODE	FACILITY	16. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)
15B. TELEPHONE NO. (Include area code)			17. SIGNATURE
15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.			18. OFFER DATE

AWARD (To be completed by Government)

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION
22. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: <input type="checkbox"/> 10 U.S.C. 2304(c) () <input type="checkbox"/> 41 U.S.C. 253(c) ()		23. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified) ITEM
24. ADMINISTERED BY (If other than Item 7)	CODE	25. PAYMENT WILL BE MADE BY CODE
26. NAME OF CONTRACTING OFFICER (Type or print)		27. UNITED STATES OF AMERICA (Signature of Contracting Officer)
		28. AWARD DATE

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

**PART I - THE SCHEDULE
SECTION B
SUPPLIES OR SERVICES AND PRICES/COSTS**

B-1 SUPPLIES/SERVICES AND COSTS

ITEM NUMBER	SUPPLIES/SERVICES	ESTIMATEDCOST	FIXED FEE	ESTIMATED COST PLUS FIXED FEE
PHASE 1:				
0001	The Contractor shall Design, Test, Fabricate, and Deliver to the Naval Research Laboratory (NRL), An Antibody Array Biosensor and Disposable component Prototypes, in accordance with Attachment (1), Specifications	\$	\$	\$
0002	Critical Design Review	*NSP	*NSP	*NSP
0003	Data in accordance with Exhibit A, DD1423, and Enclosure (1)	*NSP	*NSP	*NSP
OPTION I - PHASE 2:				
0004	The Contractor shall Modify final device prototypes and deliver the following to NRL in accordance with Attachment (1).			
0004AA	Two Antibody Array Biosensor	\$	\$	\$
0004AB	1000 Disposable Sensing Elements.	\$	\$	\$
0005	Technical Progress Report in accordance with Exhibit B, DD1423, and Enclosure (1)	*NSP	*NSP	*NSP
0006	Final Report, Detailed Blueprints and Operator's Manual in accordance with Exhibit B, DD1423, and Enclosure (1)	*NSP	*NSP	*NSP
TOTAL EST. COST PLUS FIXED FEE		\$	\$	\$

* Not Separately Priced

**SECTION C
DESCRIPTION/SPECIFICATIONS/STATEMENT OF WORK**

C-1 STATEMENT OF WORK

The work and services to be performed hereunder shall be subject to the requirements and standards contained in Attachment (1), Specifications, with Exhibit A, Contract Data Requirements List, and all other Attachments cited in Section J, which are incorporated by reference into Section C.

**SECTION D
PACKAGING AND MARKING**

D-1 PACKAGING AND MARKING

Preservation, packaging, packing and marking of all deliverable contract line items must conform to normal commercial packing standards to assure safe delivery at destination.

**SECTION E
INSPECTION AND ACCEPTANCE**

E-1 INSPECTION AND ACCEPTANCE CLAUSES INCORPORATED BY REFERENCE:

FAR CLAUSE TITLE

52.246-3 - Inspection Of Supplies- Cost Reimbursement (APR 1984)

DFARS CLAUSE TITLE

252.246-7000 - Material Inspection And Receiving Report (DEC 1991)

E-2 INSPECTION AND ACCEPTANCE

Inspection and acceptance of the final delivery will be accomplished by the Technical Manager (TM) or Contracting Officer Representative (COR) designated in Section G of this contract . Inspection and acceptance will be performed at the Naval Research Laboratory, Washington DC 20375-5320.

SECTION F
DELIVERIES OR PERFORMANCE

F-1 DELIVERIES OR PERFORMANCE CLAUSES INCORPORATED BY REFERENCE:

FAR CLAUSE TITLE

52.242-15 - Stop-Work Order (AUG 1989) - Alternate I (APR 1984)
52.247-34 - F.O.B. Destination (NOV 1991)

F-2 PERIOD AND PLACE OF PERFORMANCE

- (a) The work under this contract shall commence on **01 June 1999** and be completed no later than six (6) months thereafter.
- (b) The work under Option I, if exercised, shall be completed no later than six(6) months from the date the option is exercised.
- (c) The principal place of performance of this contract shall be *
(* To be filled in at time of award)

SECTION G
CONTRACT ADMINISTRATION DATA

G-1 PROCURING OFFICE REPRESENTATIVE

In order to expedite administration of the contract, the Administrative Contracting Officer (ACO) will direct inquiries to the appropriate office listed below. Please do not direct routine inquiries to the person listed in Item 20A on Standard Form 26.

Contract Matters- *

Security Matters- *

Safety Matters- *

Patent Matters- *

Release of Data- *

The ACO will forward invention disclosures and reports directly to the Associate Counsel for Patents, Code 3008.2, Naval Research Laboratory, Washington DC 20375-5320. The Associate Counsel for Patents will return the reports along with a recommendation to the Administrative Contracting Officer. The Associate Counsel for Patents will represent the Contracting Officer with regard to invention reporting matters arising under this contract.

(* To be filled in at time of award)

G-2 CONTRACTING OFFICER'S REPRESENTATIVE (COR) - FUNCTIONS AND LIMITATIONS

* is hereby designated the cognizant COR who will represent the Contracting Officer in the administration of technical details within the scope of this contract and inspection and acceptance. The COR is not otherwise authorized to make any representations or commitments of any kind on behalf of the Contracting Officer or the Government. The COR does not have the authority to alter the Contractor's obligations or change the specifications in the contract. If, as a result of technical discussions, it is desirable to alter contract obligations or statements of work, a modification must be issued in writing and signed by the Contracting Officer. The COR is responsible for reviewing the bills and charges submitted by the Contractor and informing the ACO of areas where exceptions are to be taken.

(* To be filled in at time of award)

G-3 ONR 5252.242-9718 - TECHNICAL DIRECTION (DEC 88)

(a) Performance of the work hereunder is subject to the technical direction of the Scientific Officer/COR designated in this contract or his duly authorized representative. For the purposes of this clause, technical direction includes the following:

- (1) Direction to the Contractor which shifts work emphasis between work areas or tasks, requires pursuit of certain lines of inquiry, fills in details or otherwise serves to accomplish the objectives described in the statement of work;
- (2) Guidelines to the Contractor which assist in the interpretation of drawings, specifications or technical portions of work description.

(b) Technical direction must be within the general scope of work stated in the contract. Technical instructions may not be used to:

- (1) Assign additional work under the contract
- (2) Direct a change as defined in the contract clause entitled "Changes";
- (3) Increase or decrease the estimated contract cost, the fixed fee, or the time required for contract performance; or
- (4) Change any of the terms, conditions or specifications of the contract.

(c) The only individual authorized to in any way amend or modify any of the terms of this contract shall be the Contracting Officer. When, in the opinion of the Contractor, any technical instruction calls for effort outside the scope of the contract or inconsistent with this special provision, the Contractor shall notify the Contracting Officer in writing within ten working days after its receipt. The Contractor shall not proceed with the work affected by the technical direction until the Contractor is notified by the Contracting Officer that the technical direction is within the scope of the contract.

(d) Nothing in the foregoing paragraphs may be construed to excuse the Contractor from performing that portion of work statement which is not affected by the disputed technical instruction.

G-4 NAPS 5252.232-9001 - SUBMISSION OF INVOICES (COST-REIMBURSEMENT, TIME-AND-MATERIALS, LABOR-HOUR, OR FIXED PRICE INCENTIVE (JUL 1992)

(a) "Invoice" as used in this clause includes contractor requests for interim payments using public vouchers (SF 1034) but does not include contractor requests for progress payments under fixed price incentive contracts.

(b) The Contractor shall submit invoices and any necessary supporting documentation, in an original and 4 copies, to the contract auditor at the following address:

(To be filled in at time of award)

unless delivery orders are applicable, in which case invoices will be segregated by individual order and submitted to the address specified in the order. In addition, an information copy shall be submitted to [See Section G for designated COR]. Following verification, the contract auditor will forward the invoice to the designated payment office for payment in the amount determined to be owing, in accordance with the applicable payment (and fee) clause(s) of this contract.

(c) Invoices requesting interim payments shall be submitted no more than once every two weeks, unless another time period is specified in the Payments clause of this contract. For indefinite delivery type contracts, interim payment invoices shall be submitted no more than once every two weeks for each delivery orders. There shall be a lapse of no more than 30 calendar days between performance and submission of an interim payment invoice.

(d) In addition to the information identified in the Prompt Payment clause herein, each invoice shall contain the following information, as applicable:

- (1) Contract line item number (CLIN)
- (2) Subline item number (SLIN)
- (3) Accounting Classification Reference Number(ACRN)
- (4) Payment terms
- (5) Procuring activity
- (6) Date supplies provided or services performed
- (7) Costs incurred and allowable under the contract
- (8) Vessel (e.g., ship, submarine or other craft) or system for which supply/service is provided

(e) A DD Form 250, "Material Inspection and Receiving Report",

 is required with each invoice submittal.

X is required only with the final invoice.

 is not required.

(f) A Certificate of Performance

 shall be provided with each invoice submittal.

X is not required.

(g) The Contractor's final invoice shall be identified as such, and shall list all other invoices (if any) previously tendered under this contract.

(h) Cost of performance shall be segregated, accumulated and invoiced to the appropriate ACRN categories to the extent possible. When such segregation of costs by ACRN is not possible for invoices submitted with CLIN/SLINS with more than one ACRN, an allocation ratio shall be established in the same ratio as the obligations cited in the accounting data so that costs are allocated on a proportional basis.

G-5 PAYMENT OF FIXED FEE (COMPLETION FORM)

The fixed fee set forth in Section B of this contract shall be payable on completion of the work and services required under each CLIN of this contract and their acceptance on behalf of the Government. However, the contractor may bill on each voucher the amount of the fixed fee bearing the same percentage to the amount of cost billed as the total fixed fee bears to the total estimated cost set forth in Section B, subject to the contract clause entitled "Fixed Fee" (FAR 52.216-8). If the fixed fee is reduced pursuant to any clause or requirement of this contract and the reduced fee is less than the sum of all fee payments made to the contractor under this contract, the contractor shall repay the difference to the Government. The total fee paid the contractor shall not exceed the fixed fee set forth in Section B.

G-6 INCREMENTAL FUNDING

This contract is incrementally funded pursuant to the Limitation of Funds clause, FAR 52.232-22. Funds are allotted to the contract in the amount of \$ * and it is estimated that they are sufficient for contract performance through *.

(* To be filled in at time of award)

G-7 PAYMENT INSTRUCTIONS FOR MULTIPLE ACCOUNTING CLASSIFICATION CITATIONS (COST-REIMBURSEMENT)

The purpose of these instructions is to permit the paying office to charge the accounting classification citations in the contract in a manner that reflects the performance of the contract. These instructions do not create any obligation on the part of the Government or the contractor nor do they in any way alter any obligation created by any other provision of the contract. Invoices should be paid from available ACRNs in the following order:

- (a) ACRNs cited on the contractor's invoice.
- (b) On a proportional basis from any ACRNs assigned to funds which will cancel at the end of the current fiscal year.
- (c) The ACRN assigned to the following line of accounting:
97X4930.NH4A 000 77777 0 000173 2F 000000 N00173Z45000.
- (d) If funds appropriated in more than one fiscal year are allotted to the contract, the ACRN assigned to the oldest allotment of funds.
- (e) On a proportional basis from all ACRNs assigned to allotments of funds appropriated in a single fiscal year.

G-8 ACCOUNTING AND APPROPRIATION DATA

(To be filled in at time of award)

SECTION H SPECIAL CONTRACT REQUIREMENTS

H-1 TYPE OF CONTRACT

(To be filled in at time of award)

H-2 ONR 5252.237-9705 - KEY PERSONNEL (DEC 88)

(a) The Contractor agrees to assign to the contract tasks those persons whose resumes were submitted with its proposal and who are necessary to fulfill the requirements of the contract as "key personnel". No substitutions may be made except in accordance with this clause.

(b) The Contractor understands that during the first ninety (90) days of the contract performance period, no personnel substitutions will be permitted unless these substitutions are unavoidable because of the incumbent's sudden illness, death or termination of employment. In any of these events, the Contractor shall promptly notify the Contracting Officer and provide the information described in paragraph (c) below. After the initial ninety (90) day period the Contractor must submit to the Contracting Officer all proposed substitutions, in writing, at least fifteen (15) days in advance (thirty (30) days if security clearance must be obtained) of any proposed substitution and provide the information required by paragraph (c) below.

(c) Any request for substitution must include a detailed explanation of the circumstances necessitating the proposed substitution, a resume for the proposed substitute, and any other information requested by the Contracting Officer. Any proposed substitute must have qualifications equal to or superior to the qualifications of the incumbent. The Contracting Officer or his/her authorized representative will evaluate such requests and promptly notify the Contractor of his/her approval or disapproval thereof.

(d) In the event that any of the identified key personnel cease to perform under the contract and the substitute is disapproved, the contract may be immediately terminated in accordance with the Termination clause of the contract.

The following are identified as key personnel:

(To be filled in at time of award)

H-3 ONR 5252.235-9714 - REPORT PREPARATION (FEB 97)

Scientific or technical reports prepared by the Contractor and deliverable under the terms of this contract will be prepared in accordance with format requirements contained in ANSI/NISO Z39.18-1995, "Scientific and Technical Reports: Elements, Organization, and Design." [NOTE: ANSI Z39.18 may be obtained from NISO Press Fulfillment Center, P. O. Box 338, Oxon Hill, MD. 20750-0338. Telephone 1-800-282-6476]

H-4 OPTION(S)

The Government may require performance of the numbered line items identified in the Schedule as optional items at the price stated in the Schedule. The Contracting Officer may unilaterally exercise the option by written notice to the Contractor anytime prior to the current completion date of the contract.

H-5 YEAR 2000 COMPLIANT INFORMATION TECHNOLOGY

This requirement applies to information technology (IT) that processes date-related information. All such IT delivered under this contract shall be Year 2000 compliant as defined at FAR 39.002.

H-6 REPRESENTATIONS AND CERTIFICATIONS

The Contractor's completed Representations, Certifications, and Other Statements of Offerors or Respondents is incorporated herein by reference in any resultant award.

PART II - CONTRACT CLAUSES
SECTION I
CONTRACT CLAUSES

I-1 52.252-2 - CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far>
<http://heron.nrl.navy.mil/contracts/home.htm>

a. FEDERAL ACQUISITION REGULATION CLAUSES

FAR CLAUSE TITLE

52.202-1	-	Definitions (OCT 1995)
52.203-3	-	Gratuities (APR 1984)
52.203-5	-	Covenant Against Contingent Fees (APR 1984)
52.203-6	-	Restrictions On Subcontractor Sales To The Government (JUL 1995)
52.203-7	-	Anti-Kickback Procedures (JUL 1995)
52.203-8	-	Cancellation, Rescission, And Recovery Of Funds For Illegal Or Improper Activity (JAN 1997)
52.203-10	-	Price Or Fee Adjustment For Illegal Or Improper Activity (JAN 1997)
52.203-12	-	Limitation On Payments To Influence Certain Federal Transactions (JUN 1997)
52.204-4	-	Printing/Copying Double-Sided On Recycled Paper (JUN 1996)
52.209-6	-	Protecting The Government's Interest When Subcontracting With Contractors Debarred, Suspended, Or Proposed For Debarment (JUL 1995)
52.211-15	-	Defense Priority and Allocation Requirements (SEP 1990)
52.215-2	-	Audit And Records-Negotiation (AUG 1996)
52.215-8	-	Order of Precedence - Uniform Contract Format (OCT 1997)
52.215-11	-	Price Reduction for Defective Cost or Pricing Data - Modifications (OCT 1997)
52.215-13	-	Subcontractor Cost or Pricing Data Modifications (OCT 1997)
52.215-14	-	Integrity of Unit Prices (OCT 1997)
52.215-17	-	Waiver of Facilities Capital Cost of Money (OCT 1997) (<i>will be included if the successful offeror does not propose facilities capital cost of money</i>)
52.215-21	-	Requirements for Cost or Pricing Data or Information Other Than Cost or Pricing Data -Modifications (OCT 1997)
52.216-7	-	Allowable Cost And Payment (APR 1998)
52.216-8	-	Fixed-Fee (MAR 1997)
52.219-4	-	Notice of Price Evaluation Preference For HUBZone Small Business Concerns (JAN 1999) <input type="checkbox"/> Offeror elects to waive the evaluation preference.
52.219-6	-	Notice Of Total Small-Business Set-Aside (JUL 1996)
52.219-8	-	Utilization Of Small Business Concerns (JAN 1999)

- 52.219-14 - Limitations On Subcontracting (DEC 1996)
- 52.222-1 - Notice To The Government Of Labor Disputes (FEB 1997)
- 52.222-21 - Prohibition of Segregated Facilities (FEB 1999)
- 52.222-26 - Equal Opportunity (FEB 1999)
- 52.222-35 - Affirmative Action For Disabled Veterans And Veterans Of The Vietnam Era (APR 1998)
- 52.222-36 - Affirmative Action For Workers With Disabilities (JUN 1998)
- 52.222-37 - Employment Reports On Disabled Veterans And Veterans Of The Vietnam Era (APR 1998)
- 52.223-2 - Clean Air And Water (APR 1984)
- 52.223-6 - Drug-Free Workplace (JAN 1997)
- 52.223-14 - Toxic Chemical Release Reporting (OCT 1996)
- 52.225-11 - Restrictions On Certain Foreign Purchases (AUG 1998)
- 52.227-1 - Authorization And Consent (JUL 1995)- Alternate I (APR 1984)
- 52.227-2 - Notice And Assistance Regarding Patent And Copyright Infringement (AUG 1996)
- 52.227-11 - Patent Rights - Retention By The Contractor (Short Form) (JUN 1997)
(will be included if the successful offeror is a small business or a non-profit organization)
- 52.228-7 - Insurance - Liability To Third Persons (MAR 1996)
- 52.232-9 - Limitation On Withholding Of Payments (APR 1984)
- 52.232-17 - Interest (JUN 1996)
- 52.232-18 - Availability Of Funds (APR 1984)
- 52.232-20 - Limitation Of Cost (APR 1984) (Applicable when the contract or task order is fully funded)
- 52.232-22 - Limitation Of Funds (APR 1984) (Applicable when the contract or task order is not fully funded)
- 52.232-23 - Assignment Of Claims (JAN 1986) Alternate I (APR 1984)
- 52.232-25 - Prompt Payment (JUN 1997)
- 52.233-1 - Disputes (DEC 1998) - Alternate I (DEC 1991)
- 52.233-3 - Protest After Award (AUG 1996) - Alternate I (JUN 1985)
- 52.237-3 - Continuity Of Services (JAN 1991)
- 52.242-1 - Notice Of Intent To Disallow Costs (APR 1984)
- 52.242-4 - Certification of Final Indirect Costs (JAN 1997)
- 52.242-13 - Bankruptcy (JUL 1995)
- 52.243-2 - Changes - Cost-Reimbursement (AUG 1987)
- 52.243-6 - Change Order Accounting (APR 1984)
- 52.244-2 - Subcontracts (AUG 1998) - Alternate I (AUG 1998)
- 52.244-5 - Competition In Subcontracting (DEC 1996)
- 52.244-6 - Subcontracts for Commercial Items and Commercial Components (OCT 1998)
- 52.245-9 - Use And Charges (APR 1984) (DEVIATION)
- 52.246-23 - Limitation Of Liability (FEB 1997)
- 52.247-1 - Commercial Bill Of Lading Notations (APR 1984)
- 52.247-63 - Preference For U. S. Flag Carriers (JAN 1997)
- 52.249-6 - Termination (Cost-Reimbursement) (SEP 1996)

- 52.249-14 - Excusable Delays (APR 1984)
- 52.251-1 - Government Supply Sources (APR 1984)
- 52.252-6 - Authorized Deviations in Clauses (APR 1984)(fill in Defense Federal Acquisition Regulation Supplement (48 CFR Chapter 2)))
- 52.253-1 - Computer Generated Forms (JAN 1991)

b. DEPARTMENT OF DEFENSE FEDERAL ACQUISITION REGULATION CLAUSES

DFARS CLAUSE TITLE

- 252.201-7000 - Contracting Officer's Representative (DEC 1991)
- 252.203-7001 - Special Prohibition On Employment (JUN 1997)
- 252.204-7003 - Control Of Government Personnel Work Product (APR 1992)
- 252.204-7004 - Required Central Contractor Registration (MAR 1998)
- 252.209-7000 - Acquisition From Subcontractors Subject To On-Site Inspection Under The Intermediate-Range Nuclear Forces (INF) Treaty (NOV 1995)
- 252.209-7004 - Subcontracting With Firms That Are Owned Or Controlled By The Government Of A Terrorist Country (MAR 1998)
- 252.211-7005 - Substitutions For Military Or Federal Specifications And Standards (AUG 1997)
- 252.215-7000 - Pricing Adjustments (DEC 1991)
- 252.225-7009 - Duty Free Entry- Qualifying Country Supplies (End Products and Components) (MAR 1998)
- 252.225-7010 - Duty Free Entry - Additional Provisions (MAR 1998)
- 252.225-7012 - Preference For Certain Domestic Commodities (JAN 1999)
- 252.225-7031 - Secondary Arab Boycott Of Israel (JUN 1992)
- 252.227-7000 - Non Estoppel (OCT 1966)
- 252.227-7001 - Release Of Past Infringement (AUG 1984)
- 252.227-7013 - Rights In Technical Data -- Noncommercial Items (NOV 1995) - Alternate I (JUN 1995)
- 252.227-7014 - Rights In Noncommercial Computer Software And Noncommercial Computer Software Documentation (JUN 1995) - Alternate I (JUN 1995)
- 252.227-7016 - Rights In Bids or Proposal Information (JUN 1995)
- 252.227-7019 - Validation Of Asserted Restrictions--Computer Software (JUN 1995)
- 252.227-7026 - Deferred Delivery Of Technical Data Or Computer Software (APR 1988)
- 252.227-7027 - Deferred Ordering Of Technical Data Or Computer Software (APR 1988)
- 252.227-7030 - Technical Data--Withholding Of Payment (OCT 1988)
- 252.227-7034 - Patents--Subcontracts (APR 1984)
- 252.227-7036 - Declaration Of Technical Data Conformity (JAN 1997)
- 252.227-7037 - Validation Of Restrictive Markings On Technical Data (NOV 1995)
- 252.227-7039 - Patents--Reporting of Subject Inventions (APR 1990)
- 252.231-7000 - Supplemental Cost Principles (DEC 1991)
- 252.232-7009 - Payment By Electronic Funds Transfer (CCR) (JUN 1998)
- 252.235-7010 - Acknowledgment of Support and Disclaimer (MAY 1995)
- 252.235-7011 - Final Scientific Or Technical Report (MAY 1995)
- 252.242-7000 - Post Award Conference (DEC 1991)

- 252.242-7004 - Material Management And Accounting System (SEP 1996)
- 252.243-7002 - Requests for Equitable Adjustment (MAR 1998)
- 252.245-7001 - Reports of Government Property (MAY 1994)
- 252.246-7001 - Warranty Of Data (DEC 1991)
- 252.247-7023 - Transportation Of Supplies By Sea (NOV 1995)
- 252.247-7024 - Notification Of Transportation Of Supplies By Sea (NOV 1995)
(will be included if the successful offeror made a negative response to the inquiry at DFARS 252.247-7022)
- 252.251-7000 - Ordering From Government Supply Sources (MAY 1995)

I-2 FAR 52.223-11 - OZONE-DEPLETING SUBSTANCES (JUN 1996)

(a) Definitions.

"Ozone-depleting substance", as used in this clause, means any substance designated as Class I by the Environmental Protection Agency (EPA) (40 CFR Part 82), including but not limited to chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or any substance designated as Class II by EPA (40 CFR Part 82), including but not limited to hydrochlorofluorocarbons.

(b) The Contractor shall label products which contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j (b), (c), and (d) and 40 CFR Part 82, Subpart E, as follows:

"WARNING: Contains (or manufactured with, if applicable) _____, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere."

* The Contractor shall insert the name of the substance(s).

I-3 DFARS 252.225-7008 - SUPPLIES TO BE ACCORDED DUTY- FREE ENTRY (MAR 1998)

In accordance with paragraph (b) of the Duty-Free Entry clause of this contract, in addition to duty-free entry for all qualifying country supplies (end products and components) and all eligible end products subject to applicable trade agreements (if this contract contains the Buy American Act - Trade Agreements - Balance of Payments Program clause or the Buy American Act - North American Free Trade Agreement Implementation Act - Balance of Payments Program clause), the following foreign end products that are neither qualifying country end products nor eligible end products under a trade agreement, and the following nonqualifying country components, are accorded duty free entry.

PART III - LIST OF DOCUMENTS, EXHIBITS, AND OTHER ATTACHMENTS
SECTION J
LIST OF ATTACHMENTS

- J-1** Attachment (1) - Statement Of Work –3 Pages, With Exhibit A - DD Form 1423, Contract Data Requirements And Enclosure (1) - Instructions For Distribution-3 Pages

PART IV - REPRESENTATIONS AND INSTRUCTIONS
SECTION - K
REPRESENTATIONS, CERTIFICATIONS
AND OTHER STATEMENTS OF OFFERORS OR RESPONDENTS

K-1 Representations, Certifications, and Other Statements of Offerors or Respondents

Each Offeror must submit a completed Representations, Certifications, and Other Statements Of Offerors or Respondents with its proposal which is available electronically in full text at <http://heron.nrl.navy.mil/contracts/rep&certs.htm>

K-2 FILL IN FOR FAR 52.219-1 - SMALL BUSINESS PROGRAM REPRESENTATIONS (OCT 1998)

The fill in information is as follows:

The standard industrial classification (SIC) code for this acquisition is 3826.

The small business size standard is 500 Employees.

K-3 COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE REPORTING

The Offeror's CAGE Code is {fill-in}_____.

See DFARS 252.204-7001 in Section L for procedures on requesting a CAGE Code.

SECTION L
INSTRUCTIONS CONDITIONS AND NOTICES
TO OFFERORS OR RESPONDENTS

L-1 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

<http://www.arnet.gov/far>
<http://heron.nrl.navy.mil/contracts/home.htm>

FAR CLAUSE	TITLE
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52.204-6	- Data Universal Numbering System (DUNS) Number (APR 1998)
52.214-34	- Submission Of Offers In The English Language (APR 1991)
52.214-35	- Submission Of Offers In U.S. Currency (APR 1991)
52.215-1	- Instructions to Offerors- Competitive Acquisition (OCT 1997)
52.215-16	- Facilities Capital Cost Of Money (OCT 1997)
52.252-5	- Authorized Deviations in Provisions (APR 1984)

L-2 FAR 52.211-14 - NOTICE OF PRIORITY RATING FOR NATIONAL DEFENSE USE (SEP 1990)

Any contract awarded as a result of this solicitation will be a ☐ DX rated order; ☒ DO rated order certified for national use under the Defense Priorities and Allocations system (DPAS) (15 CFR 700), and the Contractor will be required to follow all of the requirements of this regulation.

L-3 FAR 52.215-20 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 1997)ALTERNATE IV (OCT 1997)

- (a) Submission of cost or pricing data is not required.
- (b) Provide information as described in Section L-13.

L-4 FAR 52.216-1 - TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a Cost Plus Fixed Fee Completion contract resulting from this solicitation.

L-5 FAR 52.233-2 - SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in Section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO) shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from the Control Desk, Code 3200, Bldg. 222, Rm. 115, Naval Research Laboratory, 4555 Overlook Ave., S.W., Washington DC 20375-5326.

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

L-6 DFARS 252.204-7001 - COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE REPORTING (DEC 1991)

- (a) The Offeror is requested to enter its CAGE code on its offer in the block with its name and address. The CAGE code entered must be for that name and address. Enter CAGE Before the number.
- (b) If the Offeror does not have a CAGE code, it may ask the Contracting Officer to request one from the Defense Logistics Services Center (DLSC). The Contracting Officer will--
 - (1) Ask the Contractor to complete section B of a DD Form 2051, Request for Assignment of the Commercial and Government Entity (CAGE) Code;
 - (2) Complete section A and forward the form to DLSC; and
 - (3) Notify the Contractor of its assigned CAGE code.
- (c) Do not delay submission of the offer pending receipt of a CAGE code.

L-7 DFARS 252.227-7017 - IDENTIFICATION AND ASSERTION OF USE, RELEASE, OR DISCLOSURE RESTRICTIONS (JUN 1995)

- (a) The terms used in this provision are defined in following clause or clauses contained in this solicitation--
 - (1) If a successful offeror will be required to deliver technical data, the Rights in Technical Data--Noncommercial Items clause, or, if this solicitation contemplates a contract under the Small Business Innovative Research Program, the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program clause.
 - (2) If a successful offeror will not be required to deliver technical data, the Rights in Noncommercial Computer Software and Noncommercial Computer Software Documentation clause, or, if this solicitation contemplates a contract under the Small Business Innovative Research Program, the Rights in Noncommercial Technical Data and Computer Software--Small Business Innovative Research (SBIR) Program clause.
- (b) The identification and assertion requirements in this provision apply only to technical data, including computer software documents, or computer software to be delivered with other than unlimited rights. For contracts to be awarded under the Small Business Innovative Research Program, the notification requirements do not apply to technical data or computer software that will be generated under the resulting contract. Notification and identification is not required for restrictions based solely on copyright.
- (c) Offers submitted in response to this solicitation shall identify, to the extent known at the time an

offer is submitted to the Government, the technical data or computer software that the Offeror, its subcontractors or suppliers, or potential subcontractors or suppliers, assert should be furnished to the Government with restrictions on use, release, or disclosure.

- (d) The Offeror's assertions, including the assertions of its subcontractors or suppliers or potential subcontractors or suppliers shall be submitted as an attachment to its offer in the following format, dated and signed by an official authorized to contractually obligate the Offeror: Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data or Computer Software.

The Offeror asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data or computer software should be restricted:

Technical Data or Computer Software to be Furnished With Restrictions*	Basis for Assertion**	Asserted Rights Category***	Name of Person Asserting Restrictions****
(LIST)*****.	(LIST)	(LIST)	(LIST)

* For technical data (other than computer software documentation) pertaining to items, components, or processes developed at private expense, identify both the deliverable technical data and each such items, component, or process. For computer software or computer software documentation identify the software or documentation.

** Generally, development at private expense, either exclusively or partially, is the only basis for asserting restrictions. For technical data, other than computer software documentation, development refers to development of the item, component, or process to which the data pertain. The Government's rights in computer software documentation generally may not be restricted. For computer software, development refers to the software. Indicate whether development was accomplished exclusively or partially at private expense. If development was not accomplished at private expense, or for computer software documentation, enter the specific basis for asserting restrictions.

*** Enter asserted rights category (e.g., government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited, restricted, or government purpose rights under this or a prior contract, or specially negotiated licenses).
**** Corporation, individual, or other person, as appropriate.

***** Enter "none" when all data or software will be submitted without restrictions.

Date _____

Printed Name and Title _____

Signature _____

(End of identification and assertion)

- (e) An offeror's failure to submit, complete, or sign the notification and identification required by paragraph (d) of this provision with its offer may render the offer ineligible for award.
- (f) If the Offeror is awarded a contract, the assertions identified in paragraph (d) of this provision shall be listed in an attachment to that contract. Upon request by the Contracting Officer, the Offeror shall provide sufficient information to enable the Contracting Officer to evaluate any listed assertion.

L-8 DFARS 252.227-7028 - TECHNICAL DATA OR COMPUTER SOFTWARE PREVIOUSLY DELIVERED TO THE GOVERNMENT (JUN 1995)

The Offeror shall attach to its offer an identification of all documents or other media incorporating technical data or computer software it intends to deliver under this contract with other than unlimited rights that are identical or substantially similar to documents or other media that the Offeror has produced for, delivered to, or is obligated to deliver to the Government under any contract or subcontract. The attachment shall identify - -

- (a) The contract number under which the data or software were produced;
- (b) The contract number under which, and the name and address of the organization to whom, the data or software were most recently delivered or will be delivered; and
- (c) Any limitations on the Government's rights to use or disclose the data or software, including, when applicable, identification of the earliest date the limitations expire.

L-9 GOVERNMENT-FURNISHED PROPERTY

No material, labor, or facilities will be furnished by the Government unless provided for in the solicitation.

L-10 INQUIRIES CONCERNING THE RFP

Any questions concerning the RFP must be submitted in writing to the Contracting Officer at the location noted in blocks 7 and 9 of the Standard Form 33, "Solicitation, Offer and Award," no less than fifteen (15) days before closing. The Government will not consider questions received after this date. Offerors are cautioned against directing any questions concerning this RFP to technical personnel at the Naval Research Laboratory.

L-11 INSTRUCTIONS FOR SUBMISSION AND INFORMATION REQUIRED TO EVALUATE

PROPOSALS

(1) Information for the technical/management proposal shall be placed in Volume I and be completely separate from the business proposal (Volume II).

(2) Proposal Identification/Mailing - The proposal should be packaged for delivery so as to permit safe and timely arrival at destination. The proposal package should be sent to the address shown in Block 7 of the RFP face page and marked:

Solicitation No. N00173-99-R-JR06

Closing Date:

(As specified in Block 9, RFP face page)

Attn: Code 3220:JR

(3) Proposal Format and Length - No attempt is made to restrict the proposal format and style. However, the proposal should be written and organized so as to be compatible with the RFP, the Statement of Work, company's organization and accounting structure, and proposed cost estimate. Offerors are encouraged to use recycled paper and maximize the use of double sided copying when preparing responses to solicitations.

L-12 VOLUME I - TECHNICAL/MANAGEMENT PROPOSAL**REQUIRED COPIES: 1 ORIGINAL AND 3 COPIES .**

(1) Include a matrix indicating proposed labor hours by skill category required to perform the statement of work. This matrix shall not contain labor rates or any other indication of price.

(2) The following information is required for evaluation of your technical/management :

A. Completeness and Feasibility of System Design

The proposal should indicate the effectiveness of system integration to achieving the functional specifications, which will be above and beyond the effectiveness of the individual system components. Each component must be designed with the other components in mind. The proposal should indicate the offerors description of the operational unification of the Fluidics, optics, software and biochemical sensing surface with each other.

The proposal shall provide a system design which demonstrates robustness for portability, reliability for extended operations, and simplicity for use by an operator without technical training.

The proposal shall provide a detailed description of the overall system and the integration of disposable and permanent components.

B. Corporate Experience in Small Optical Sensors, Small Fluidic Systems, and Molded Plastic Components

The proposal shall provide offeror's supported evidence that they are able to design, prototype, test, and manufacture small optical sensors. This shall include supported evidence of the offerors experience in design and manufacture of small fluidic systems.

The proposal should indicate the offerors experience with small, relatively complex molded plastic components.

C. Design of Disposable Component and Ease of Manufacture

The proposal shall provide the described effectiveness of how the disposable component presents sample to the array of antibodies in a reproducible manner and maximizes the interaction between the two.

The proposal shall indicate the described extent elements of the optical and fluidic system can be integrated with the sensing surface in the disposable element.

The proposal shall indicate the compatibility of the disposable element with antibody deposition and dehydration methods.

The disposable element should easily insert into the permanent portion of the instrument and provide for a reproducible analysis of an array immunoassay.

The proposal shall indicate the relative low cost of producing the disposable component in quantities of 100's to 1000's, and assembled with minimal manual labor.

D. Feasibility of Optical Components and Effectiveness of Intergration

The offerors proposal shall provide the feasibility of the system's optical components including the excitation path, illuminated sensing region, and light collection components. The entire light path should be evaluated for potential efficiency of signal excitation and collection, for variation caused by

E. Delivery Schedule and Labor Qualifications

The proposal should indicate the proposed delivery schedule and the established milestones for meeting the goals of the SOW. The proposal should indicate the technical competence of the offerors personnel as demonstrated by their resumes and experience(both general and project related).

L-13 VOLUME II - BUSINESS PROPOSAL**REQUIRED COPIES: 1 ORIGINAL AND 2 COPIES****(1) COST PROPOSAL**

The offeror shall submit a business proposal that includes a cost proposal with supporting information for each cost element consistent with offeror's cost accounting system. The supporting breakdown should include such elements as materials, direct labor, indirect cost, and other costs such as travel. The offeror shall provide exhibits as necessary to substantiate the cost elements. Should rates be used in the proposal which are not DCAA approved, the offeror shall provide complete documentation and the rationale for their use at time of proposal submission.

**SECTION M
EVALUATION FACTORS FOR AWARD****M-1 EVALUATION**

Award will be made to that offeror whose proposal is determined to be the best value to the Government, proposed cost and other factors considered. The Government reserves the right to make award to other than the low offeror. Although technical considerations are more important than the cost factor, the closer the technical scores of the various proposals are to one another, the more important the business considerations become.

M-2 EVALUATION FACTORS FOR AWARD

Proposals will be evaluated in accordance with the following criteria. The technical factor is more important than the cost factor. Technical subfactors (1) and (2) are of equal importance and are of greater importance than technical subfactors (3) through (5). Technical subfactor (3) is of greater importance than technical subfactors (4) and (5), which are of equal importance.

M-2-1. TECHNICAL/MANAGEMENT**(1) Completeness and Feasibility of System Design**

Proposal will be evaluated on effectiveness of system integration to achieving the functional specifications, which will be above and beyond the effectiveness of the individual system components. Each component must be designed with the other components in mind. Proposal will be evaluated on the offerors description of the operational unification of the Fluidics, optics, software and biochemical sensing surface with each other.

Proposal will be evaluated on system design which demonstrates robustness for portability, reliability for extended operations, and simplicity for use by an operator without technical training.

Proposals will be evaluated on the offerors detailed description of the overall system and the integration of disposable and permanent components.

(2) Corporate Experience in Small Optical Sensors, Small Fluidic Systems, and Molded Plastic Components

The proposal will be evaluated on the offerors supported evidence that they are able to design, prototype, test, and manufacture small optical sensors. This shall include supported evidence of the offerors experience in design and manufacture of small fluidic systems.

The proposal will be evaluated on the offerors experience with small, relatively complex molded plastic components.

(3) Design of Disposable Component and Ease of Manufacture

The proposal will be evaluated on the described effectiveness of how the disposable component presents sample to the array of antibodies in a reproducible manner and maximizes the interaction between the two.

The proposal will be evaluated on the described extent elements of the optical and fluidic system can be integrated with the sensing surface in the disposable element.

The proposal will be evaluated on the compatibility of the disposable element with antibody deposition and dehydration methods.

The disposable element should easily insert into the permanent portion of the instrument and provide for a reproducible analysis of an array immunoassay.

The proposal will be evaluated on the relative low cost of producing the disposable component in quantities of 100's to 1000's, and assembled with minimal manual labor.

(4) Feasibility of Optical Components and Effectiveness of Intergration

The proposal will be evaluated on the system's optical components including the excitation path, illuminated sensing region, and light collection components. The entire light path should be evaluated for potential efficiency of signal excitation and collection, for variation caused by

(5) Delivery Schedule and Labor Qualifications

The proposal will be evaluated on the proposed delivery schedule and the established milestones for meeting the goals of the SOW. The proposal will be evaluated on the technical competence of the offerors personnel as demonstrated by their resumes and experience(both general and project related).

M-2-2 COST TO THE GOVERNMENT

Proposed estimated cost to the Government. The Government may adjust the proposed cost for purposes of evaluation based upon an evaluation of cost realism. Cost Realism means that the costs in an offeror's proposal are realistic for the work to be performed; reflect a clear understanding of the requirements; and are consistent with the various elements of the offeror's technical proposal. The cost realism evaluation includes an analysis of the adequacy of the hours, labor mix, and other direct costs to perform the work as proposed in the technical proposal as well as the proposed labor and indirect rates. It also includes evaluation of the likelihood that the risks inherent in the offeror's technical approach will result in higher actual costs than anticipated.

M-3 FAR 52.217-5 - EVALUATION OF OPTIONS (JUL 1990)

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

SPECIFICATIONS
ANTIBODY ARRAY BIOSENSOR

1. Introduction:

The Naval Research Laboratory (NRL) requires a portable, automated optical biosensor capable of analyzing a sample for multiple analytes simultaneously. A laboratory prototype capable of meeting most of the functional specifications is described in the following references: M.J.Feldstein, J.P.Golden, C.A.Rowe, B.D.MacCraith, and F.S. Ligler (1999) Array Biosensor: Optical and Fluidics systems, Biomedical Microdevices, 2(1), and; Micro Total Analytical Systems, D.J. Harrison and A. van den Berg, eds., Banff, Canada, Kluwer Academic Publishers. 217-220 and 431-434, 1998. The required device is not required to use the same technology, but must operate to the same specifications, particularly in its ability to distinguish multiple analytes simultaneously in the presence of a complex sample matrix.

2. SPECIFICATIONS:

2.1 Functional Specifications: The biosensor device shall consist of the following specifications:

- 2.1.1. Size: \leq 1.5 cubic feet.
- 2.1.2. Weight \leq 15 lbs with battery. Weight includes sufficient reagents to complete at least 30 assays.
- 2.1.3. Device shall operate on battery for minimum of 12 hours and on line source.
- 2.1.4. Designed to be operated by nontechnically trained user.
Capable of simultaneous, specific detection of toxins, bacteria, and viruses.
- 2.1.5. Simultaneous assay capability should be expandable for up to 30 or more different analytes per sample.
- 2.1.6. Capability for parallel assay of up to six samples simultaneously is desired, but not required.
- 2.1.7. Require little if any preparation of ground water or clinical samples required prior to assay. (Simple filtration or dilution allowed.)
- 2.1.8. Be able to perform assays in less than or equal to 10 minutes per sample.
- 2.1.9. Be sensitive to at least 1 ng/ml toxin, 10,000 cfu/ml bacteria or 10,000,000 pfu/ml viruses required.
- 2.1.10. Produce a signal-to-background ratio of at least 5 at the limits of detection, where background is defined as the signal generated performing the entire assay with a sample not containing antigen (blank).
- 2.1.11. Must be sufficiently reliable to run assays 8 hours/day for 5 days without variation of more than 5% in fluid transport of samples, buffer or fluorescent reagent or significant variation in data analysis of positive samples run during the 5 days. Significant variation is defined as greater than 3x change in the limit of detection, i.e. 1 ng/ml to 3 ng/ml. (Disposable components can be changed during this period.)

2.1.12. Include capability for maintaining the reservoirs of fluorescent antibody mixtures below 29 degrees Centigrade, even at ambient temperatures of 120 degrees Fahrenheit.

2.1.13. Temperature, humidity, and shock tolerance equivalent to those of laptop computer.

2.1.14. Must have all parts which contact sample able to be disinfected with standard solution (i.e. 50% bleach).

2.2. Disposable component including antibody array: Shall:

- 2.2.1. Be manufacturable for less than \$5 prior to antibody immobilization
- 2.2.2. Have sensing surface capable of being patterned with up to 50 different antibody spots.
- 2.2.3. Be easily and reproducibly inserted into device
- 2.2.4. Have sensing surface compatible with immobilization of functional antibodies in arrays.
- 2.2.5. Minimize carryover between sequentially introduced samples.

2.3. Optical Components:

- 2.3.1. Be compact with no moving parts
- 2.3.2. Have a signal/instrument noise ratio equivalent to a peltier-cooled CCD.
- 2.3.3. Produce no background signal (i.e. fluorescence) from waveguide or lenses
- 2.3.4. Produce no background signal (i.e. fluorescence) from environmental or clinical samples
- 2.3.5. Distinguish each of the 50 individual spots
- 2.3.4. Produce minimal background from scattered excitation light.

2.4. Fluidics:

- 2.4.1. Fully automated for entire assay procedure
- 2.4.2. Able to withstand exposure to environmental or clinical fluids for extended periods (intermittent exposures up to one year, no clogging or fouling).
- 2.4.3. Designed for sample volumes of 0.5-2.0 milliliters.
- 2.4.4. Sufficient reagent reservoirs for at least 50 sequential assays.
- 2.4.5. Designed so that there is little if any sample carryover between sequential samples. (If a high concentration of antigen, i.e. 100 micrograms/mL, is tested in one sample, a subsequent blank sample should test negative.)
- 2.4.6. Designed to conserve reagents (i.e. recycling of fluorescent antibodies, minimal dead volumes).
- 2.4.7. Designed so that mixtures of up to 8 fluorescent antibodies (maximum) can be delivered at a time to the sensing surface, following its exposure to sample.
- 2.4.8. Made so that changes in volumes delivered or rates of delivery are less than 5% over 40 hours of operation, even with samples as viscous as whole blood or serum.

2.5. Electronics:

- 2.5.1. Automated data processing.
- 2.5.2. Simple display of results.
- 2.5.3. Storage and downloading of numerical data through RS232 link.
- 2.5.4. Capability for user to modify assay parameters such as time and flow rate.

3. Phase I:

FIRST QUARTER --

The Contractor shall design the biosensor device and disposable sensing element IAW the specifications set forth under Section 2.

The Contractor shall test candidate components and make selections based on reliability and compatibility with integrated system.

The Contractor shall provide a Critical Design Review to designated Government personnel at the contractor's facility.

SECOND QUARTER--

Based on results of the Critical Design Review, the Contractor shall fabricate prototypes of the device and disposable component.

The Contractor shall test parameters relevant to reliability, sensitivity, signal/noise and signal/background.

The Contractor shall provide prototypes to NRL for on-site testing at NRL.

The Contractor shall provide monthly reports detailing the progress of the prototype development.

OPTION I:

4. Phase II:

THIRD QUARTER--

The Contractor shall modify prototypes based on NRL's critique as performed within the Second Quarter.

The Contractor shall provide the final device prototype and disposables to NRL for testing.

FOURTH QUARTER --

The Contractor shall make changes based on NRL's critique of the final device prototype and disposables performed within the Third Quarter.

Upon completion of the changes to the device prototype and disposables, the contractor shall deliver two(2) devices and one thousand(1000) disposables to NRL.

The contractor shall provide detailed blueprints of the device along with applicable operators manuals.

(2 Data Items)

Form Approved
OMB No. 0704-0188


Public reporting burden for this collection of information is estimated to average 220 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503. Please DO NOT RETURN your form to either of these addresses. Send completed form to the Government Issuing Contracting Officer for the Contract/PR No. listed in Block E.

A. CONTRACT LINE ITEM NO. 0003		B. EXHIBIT A		C. CATEGORY: TDP _____ TM _____ OTHER _____		
D. SYSTEM / ITEM Antibody Array Biosensor		E. CONTRACT / PR NO. 69-0014-99		F. CONTRACTOR TBD		
1. DATA ITEM NO. A001	2. TITLE OF DATA ITEM Technical Progress Report			3. SUBTITLE		
4. AUTHORITY (Data Acquisition Document No.)		5. CONTRACT REFERENCE SOW Para 3		6. REQUIRING OFFICE Naval Research Laboratory		
7. DD 250 REQ	8. DIST STATEMENT REQUIRED N/A	10. FREQUENCY MTHLY	12. DATE OF FIRST SUBMISSION 30 DAC	14. DISTRIBUTION		
9. APP CODE		11. AS OF DATE 30 DAC	13. DATE OF SUBSEQUENT SUBMISSION 60 DAC	a. ADDRESSEE	b. COPIES	
16. REMARKS					Draft	Final
				Reg		Repro
				NRL Code 6908		
				Tech Mgr(TM)		1
				See Encl (1)		
				15. TOTAL		
1. DATA ITEM NO.		2. TITLE OF DATA ITEM		3. SUBTITLE		
4. AUTHORITY (Data Acquisition Document No.)		5. CONTRACT REFERENCE		6. REQUIRING OFFICE		
7. DD 250 REQ	8. DIST STATEMENT REQUIRED	10. FREQUENCY	12. DATE OF FIRST SUBMISSION	14. DISTRIBUTION		
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				Reg		Repro
				15. TOTAL		
G. PREPARED BY		H. DATE	I. APPROVED BY Jerry Riles		J. DATE	

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

17. PRICE GROUP
18. ESTIMATED TOTAL PRICE

Form Approved
OMB No. 0704-0188

G. PREPARED BY	H. DATE	I. APPROVED BY  Jerry Riles	J. DATE 3/3/99
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**18. ESTIMATED
TOTAL PRICE**

**10. ESTIMATED
TOTAL PRICE**

ENCLOSURE (1) TO DD FORM 1423 INSTRUCTIONS FOR DISTRIBUTION

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The minimum distribution of **technical reports** and the **final report** submitted in connection with this contract is as follows:

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